has been much sterile or unrealistic planning with enormous waste of human and fiscal resources.

It is time that the inherent complexity of the health care undertaking and the resulting need for realistic planning be recognized by all concerned. This is just as true for the complex problems of health care delivery as it is for the care of a patient with a complex illness. The role of the consumer and the patient has now been given recognition perhaps even beyond its due. The role of the practicing physician in planning for health care delivery has yet to be fully acknowledged either by the practicing profession or by the planners in government or elsewhere.

Along with many others, practicing physicians and the medical profession as a whole have been slow to recognize the complexity of the health care undertaking, the interdependence of its many and varied components, and the need for realistic planning if so complex an undertaking is to function smoothly, effectively, efficiently and to the reasonable satisfaction of all concerned. Planners, particularly those in ivory towers and in government, have been slow to recognize that the best laid plans, even when backed by the force of law, will go awry if they are unrealistic or impracticable, or if physicians and other providers of medical and health care services do not understand the plans or have little or no incentive to make them work.

What is clearly needed is more recognition that realistic health care planning is essential, and that those who plan and those who will carry out the plans should be more nearly one and the same. More direct physician involvement should be a primary goal of the medical profession and the society it serves.

—MSMW

Tumors of the Heart

AMONG THE RARER FORMS of cardiac disease, tumors of the heart are playing an increasingly important role. Once only a pathological curiosity, cardiac neoplasms can now be diagnosed with reasonable accuracy. In this issue, two articles deal with the opposite ends of the spectrum of cardiac tumors: Dr. Laws and his associates[1] report five cases of primary malignant tumors of the heart; Dr. Comer and his colleagues[2] review briefly the subject of left atrial myxoma. The former deals with rapidly progressive, usually incurable neoplasms; the latter with one of the few curable forms of cardiac disease.

The emphasis of the paper by Laws et al is on the radiographic features of primary malignant cardiac tumors. The authors provide important clues that can alert the clinician to the possibility of an unusual form of heart disease and suggest the possibility of a cardiac tumor. Most primary malignant tumors are invasive and involve extracardiac as well as intracavitary structures. Exploratory operations are almost always necessary, inasmuch as the nature of the tumor and its incurability cannot, as a rule, be predicted from the clinical findings.

In clinical importance, however, primary malignant tumors cannot match benign cardiac tumors, particularly myxomas of the heart, which present an important diagnostic challenge in today's cardiology.

The question of how rare are cardiac myxomas cannot be answered with any degree of accuracy, but it is estimated that in an active department of cardiology one can expect at least one case of cardiac myxoma a year. The figure of 87 successfully removed left atrial myxomas quoted by Comer et al may be misleading; this lesion is no longer considered rare enough to justify the reporting of individual cases or series of cases routinely, so that only those with unusual aspects are likely to appear in the literature.

As is pointed out by Comer et al, the consequences of left atrial myxoma—and myxomas in other locations as well—fall into three categories: (1) mechanical consequences of the tumor, (2) embolic manifestations, and (3) systemic reactions. The mechanical effects involve interference with the flow of blood, usually in the form of obstruction or valvular incompetence; systemic embolization occurs in left-sided lesions and pulmonary embolization in right-sided tumors. Major emboli in peripheral arteries may require embolectomy, and examination of the extracted embolic material may establish the diagnosis of myxoma. Systemic constitutional reactions include fever, anemia, weight loss, malaise, elevated sedimentation rate, and the presence of abnormal serum proteins. These manifestations have never been

adequately explained; they may be due to microembolization or to immune reactions.

As a result of these manifestations, the clinical picture of cardiac myxomas varies greatly.[3] Its most common form—left atrial myxoma—masquerades, in the great majority of cases, as mitral valve disease. Left ventricular myxoma may show features suggestive of hypertrophic subaortic stenosis; right ventricular myxoma may suggest right ventricular outflow obstruction; right atrial myxoma may imitate tricuspid disease or may even cause right-to-left shunts resembling cyanotic forms of congenital heart disease.[4] When the size of the myxoma or its location are insufficient to produce clear-cut features of mechanical interference with blood flow, the clinical manifestations may be more subtle. Unexplained cardiac failure suggestive of cardiomyopathy may develop as a result of cardiac myxoma; embolic phenomena without any evidence of cardiac disease have been reported. A generalized systemic disease may ensue due to the constitutional manifestations of the myxoma; if cardiac murmurs are also present, the clinical picture may suggest the diagnosis of infective endocarditis or acute rheumatic fever.

The clinical course of cardiac myxomas is as variable as the clinical manifestations. Both in duration of the symptoms and signs and in the order in which they appear, there is a wide range. Mechanical manifestations may be present with little change for months or years in some patients, or may progress rapidly in others. The systemic manifestations may appear early or late, or be absent altogether. As a rule, surgical removal of the tumor cures the disease and reverses all the secondary manifestations (except the possible permanent damage produced by emboli). However, occasionally irreversible damage may result, as exemplified by two young patients[3] who died at variable time intervals after successful complete removal of the tumor. In one, intractable cardiac failure persisted after the operation; necropsy revealed changes in the cardiac muscle resembling those of myocarditis.

The diagnosis of cardiac myxoma is based on the recognition of clinical symptoms and signs on noninvasive screening tests and angiocardiographic demonstration of the myxoma. Many clinical features have been frequently cited as suggestive of cardiac myxoma; among these are: syncope, particularly related to body position; positional change in murmurs; early diastolic sounds ("tumor plop"); the sudden onset and rapid progression of signs of valvular disease. However, the sensitivity and specificity of these clinical findings are of a low order; their presence can, at best, vaguely suggest the possibility of a cardiac tumor. The most important diagnostic noninvasive tool is echocardiography. Myxoma, a pedunculated tumor, has sufficient motion to give a characteristic echo, which is unlikely to be confused with that of other space-occupying, intracavitary structures such as solid tumors or thrombi.

Selective angiocardiography permits, in almost all cases, a definitive diagnosis, outlining the size, shape, and mobility of the tumor.

Various problems related to the surgical treatment of myxoma are discussed by Comer et al. However, they are overshadowed by the importance of early recognition. The clinician's acumen in initiating the tests that establish the diagnosis of myxoma involves a high index of suspicion. Every patient with unusual signs of mitral valve disease is a suspect for the presence of a cardiac tumor. All conditions that do not fit in the common diagnostic categories, all patients with infective endocarditis and negative blood cultures, or with unexplained febrile episodes should be screened for the possibility of cardiac tumors. The ease with which echocardiography can now be performed and the available facilities for cardiac catheterization and angiocardiography make it also advisable to screen and then to study patients with the typical picture of mitral valve disease for the remote possibility of cardiac tumors. Surgical treatment for myxoma is indicated earlier than for rheumatic heart disease, and the specter of irreversible cardiac damage and disabling systemic emboli makes early diagnosis of great importance.

The great majority of cardiac diseases involve life-long chronic afflictions. The drama of surgical relief for some of them has generated boundless enthusiasm, yet, only very few operations completely cure cardiac disease. Cardiac myxoma is one of such lesions and, thus, presents a great challenge to the cardiologist and surgeon alike.

ARTHUR SELZER, MD
Division of Cardiology
Presbyterian Hospital
Pacific Medical Center, San Francisco

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